



Docket No.: SON-2981
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nobukata Okano et al.

Application No.: 10/809,432

Confirmation No.: 8124

Filed: March 26, 2004

Art Unit: 2613

For: COMMUNICATIONS SYSTEM AND
COMMUNICATIONS LIGHTING
APPARATUS

Examiner: L. C. Pascal

REPLY BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a Reply Brief under 37 C.F.R. §41.41 in response to the Examiner's Answer mailed on July 30, 2009.

All arguments presented within the Appeal Brief of April 29, 2009 are incorporated herein by reference.

Additional arguments are provided hereinbelow.

Among others, the following positions were presented in the Examiner's Answer, each of which will be addressed in turn in this Reply Brief:

ARGUMENT

1. The claims include a light beam from one of the light sources being emitted independent of a light beam from another of the light sources.
 - a. When provided with the opportunity to do so, **no rebuttal** can be found within the Examiner's Answer to the argument set forth within the Appeal Brief (pages 9-15) that International Publication No. WO 02/25842 (Dowling) **fails** to disclose, teach, or suggest a light beam from one of the light sources being **emitted independent of a light beam from another of the light sources.**

As a consequence, the Examiner's Answer **fails** to show a disclosure within Dowling of a light beam from one of the light sources being **emitted independent of** a light beam from another of the light sources.

- b. The Examiner's Answer readily recognizes this failure in Dowling by referring U.S. Patent No. 7,099,589 (Hiramatsu). Page 14 of the Examiner's Answer concludes that the multi-beam transmitter 102 of Hiramatsu has separate sources for each beam and that they are **separately controlled.**

In response to this contention, Hiramatsu **fails** to disclose that separate sources for each beam are "**separately controlled**".

Instead, Hiramatsu arguably discloses that, further, the multi-beam transmitter 102 requires a driver dedicated to **the light source** of each beam so that **individual signals can be simultaneously transmitted** to all of the space cells (Hiramatsu at column 6, lines 19-23).

However, the Examiner's Answer **fails** to show that "**separately controlled**" and "**simultaneously transmitted**" are one in the same.

Moreover, the Examiner's Answer *fails* to show that "*simultaneous*" and "*independent*" are one in the same. The term "*simultaneous*" and the term "*independent*" could quite possibly have divergent meanings.

Likewise, the Examiner's Answer *fails* to show that being "*simultaneously transmitted*" as in Hiramatsu and being "*emitted independent of a light beam*" as in claim 24 are also one in the same.

Further note that Hiramatsu *fails* to show an emission of individual signal being independent from an emission of another individual signal.

As a consequence, the Examiner's Answer *fails* to show a disclosure within Hiramatsu of a light beam from one of the light sources being *emitted independent of* a light beam from another of the light sources.

Instead, Hiramatsu requires the *simultaneous transmission* of individual signals to all of the space cells.

Page 14 of the Examiner's Answer proffers Hiramatsu teaches that each source for each beam has a dedicated driver, and that this would obviously cause each source to be independently driven (independently emit).

In response, the proffer is mere conjecture that is unsupported by any disclosure within Hiramatsu.

Here, the express language within Hiramatsu is that the multi-beam transmitter 102 requires a driver dedicated to the light source of each beam so that individual signals can be "*simultaneously transmitted*" to all of the space cells (Hiramatsu at column 6, lines 19-23).

As a consequence, Examiner's Answer *fails* to identify any disclosure within Hiramatsu for showing that individual signals can be "independently emitted" to all of the space cells.

- c. When provided with the opportunity to do so, no rebuttal can be found within the Examiner's Answer to the argument set forth within the Appeal Brief (pages 18-19) that Newton's Telecom Dictionary (Newton) fails to disclose, teach, or suggest a light beam from one of the light sources being emitted independent of a light beam from another of the light sources.

As a consequence, the Examiner's Answer fails to show a disclosure within Newton of a light beam from one of the light sources being emitted independent of a light beam from another of the light sources.

- *Thus, Dowling, Hiramatsu, and Newton, either individually or as a whole, fail to teach a communication system wherein said information-transmitting unit has light sources, a light beam from one of said light sources being emitted independent of a light beam from another of said light sources.*

2. Claim 42 is dependent upon claim 41. Claim 41 is drawn to a communications system according to claim 24, further comprising a fourth light source unit adapted to emit a visible light beam.

- a. Page 16 of the Examiner's Answer contends that Dowling teaches visible light sources (see page 45, lines 17-19 or Dowling, "additional lights" in element 716 which are different from the illumination means 720 [*sic*]).

In response, the paragraph in the specification as originally filed beginning at page 14, line 15, is as follows.

FIG. 9 depicts an optical-information transmitting, lighting apparatus 2 that has a visible-light laser 9 for emitting visible laser beams. FIG. 9 also illustrates a region in which optical information can be received. Most light sources employed in optical

communication emit light having a wavelength in near-infrared band (780-nm) or a longer wavelength. The light they emit is therefore invisible to the human eye. Although the light any visible-light laser emits has a great energy, light invisible to the human eye is used in the present embodiment. Thus, the optical-information transmitting, lighting apparatus 2 of FIG. 9 is of so-called "eye-safe design," not emitting light beams that are harmful to the human eye.

Figure 9 of the specification as originally filed is provided hereinbelow.

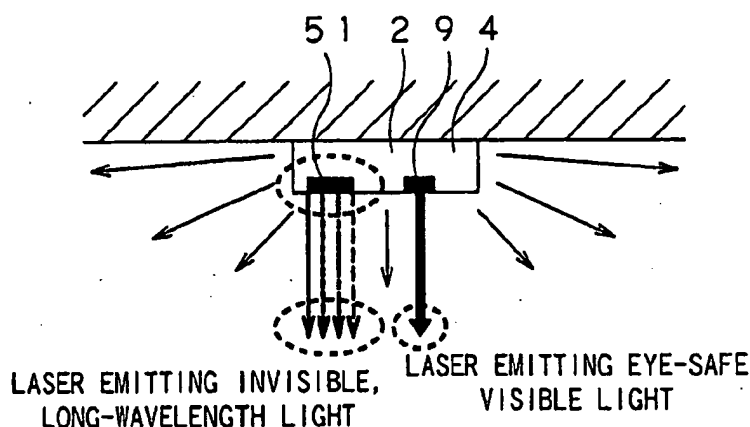


FIG. 9

Page 2 of the Final Office Action requested an amendment to replace "third light source unit" with -- fourth light source unit --.

The Final Office Action at page 7 readily admits that Dowling and Hiramatsu fail to disclose a *third light source unit adapted to emit a visible light beam*, an admission that is repeated on page 8 of the Examiner's Answer.

Notwithstanding these admissions, page 16 of the Examiner's Answer asserts in that module 712 can include an infrared interface (act as information transmitting unit which inherently

has a source) mounted on 702 (which can act as a light source, page 44, lines 17-21) and 716 may have additional lights (act as a visible light source).

In response, the instant claims 24 and 29 provide that *said information-transmitting unit has light sources*.

The Examiner's Answer *fails* to disclose module 712 of Dowling as having a plurality of light sources.

But even if module 712 of Dowling would have been suitable as one of the light sources, claim 41 includes a fourth light source unit adapted to emit a *visible* light beam.

It is well established that the disclosure of a genus in the prior art is *not necessarily a disclosure* of every species that is a member of that genus. *Atofina v. Great Lakes Chemical Corp.*, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006).

In asserting that module 712 of Dowling can include an infrared interface, the Examiner's Answer *fails* to show that module 712 of Dowling can also emit a *visible* light beam. Here, the Examiner's Answer *fails* to show that infrared and a *visible* light beam are one in the same.

- b. Page 16 of the Examiner's Answer contends that since Dowling and Hiramatsu provide the limitations of claim 41, Brooks teaches a visible light indicates a region in which the optical signals emitted from the information transmitting unit is receivable (which was not argued by the appellant).**

In response, Dowling and Hiramatsu *fail* to provide the features of claim 41 at least for the reasons provided hereinabove.

U.S. Patent No. 5,218,466 (Brooks) arguably discloses that the light apparatus 100, having the light pipe 102, the visible indicator light 104, and the infrared light 106, and the infrared detector 108 is described (Brooks at column 3, lines 59-62).

However, Brooks fails to disclose, teach, or suggest the visible indicator light 104 as having more than one light source.

Furthermore, Brooks fails to disclose, teach, or suggest the infrared light 106 as having more than one light source.

Additionally, Brooks fails to disclose, teach, or suggest the visible indicator light 104 being emitted independent of the infrared light 106.

- *Thus, Brooks, fails to teach a communication system wherein said information-transmitting unit has light sources, a light beam from one of said light sources being emitted independent of a light beam from another of said light sources.*
 - *Additionally, Dowling, Hiramatsu, and Brooks, either individually or as a whole, fail to teach a communication system further comprising a fourth light source unit adapted to emit a visible light beam.*
3. Claim 42 is drawn to a communications system according to claim 41, wherein said visible light beam indicates a region in which said optical signal emitted from said information-transmitting unit is receivable.

Support for claim 42 can be found at least within the paragraph of the specification as originally filed beginning at page 14, line 15.

- a. **Page 16 of the Examiner's Answer contends that with regard to claim 42, the appellant provides no arguments, the examiner feels that the combination of Brooks is warranted with regard to claim 42.**

In response, Dowling, Hiramatsu, and Brooks, either individually or as a whole, fail to disclose all claimed features at least for the reasons provided hereinabove.

Here, the Examiner's Answer fails to show where within Dowling, Hiramatsu, and Brooks, either individually or as a whole, that optical signal emitted from the information-transmitting unit is receivable.

- ***Thus, Dowling, Hiramatsu, and Brooks, either individually or as a whole, fail to teach a communication system wherein said visible light beam indicates a region in which said optical signal emitted from said information-transmitting unit is receivable.***
4. No rebuttal is present within the Examiner's Answer that "Optical Networks" (Ramaswami), "Hot New Beam May Zap Bandwidth Bottleneck" (Service), and U.S. Patent No. 6,198,230 (Leeb), either individually or as a whole, fail to disclose, teach, or suggest a communication system wherein said information-transmitting unit has light sources, a light beam from one of said light sources being emitted independent of a light beam from another of said light sources.

CONCLUSION

The prior art of record fails to disclose, teach or suggest all the features of the claimed invention.

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance.

For at least the reasons set forth hereinabove, the rejection of the claimed invention should not be sustained.

Therefore, a reversal of the rejection is respectfully requested.

If any additional fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

Dated: September 8, 2009

Respectfully submitted,

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